

Combined Declaration and Power of Attorney for Patent Application

HGS Ref. PB324P2
Docket No. 1488.0740002/JMC/CBM

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled Nucleotide Sequence of Escherichia coli Pathogenicity Islands, the specification of which is attached hereto unless the following box is checked:

was filed on November 21, 1997;
as United States Application Number 08/976,259
was amended on November 21, 1997 (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)	Priority Claimed		
(Application No.)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/> Yes <input type="checkbox"/> No
(Application No.)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

60/061,953	October 14, 1997
(Application No.)	(Filing Date)
60/031,626	November 21, 1996
(Application No.)	(Filing Date)

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

(Application No.) abandoned	(Filing Date)	(Status - patented, pending,
(Application No.) abandoned	(Filing Date)	(Status - patented, pending,

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert G. Sterne, Esq., Reg. No. 28,912; Edward J. Kessler, Esq., Reg. No. 25,688; Jorge A. Goldstein, Esq., Reg. No. 29,021; Samuel L. Fox, Esq., Reg. No. 30,353; David K.S. Cornwell, Esq., Reg. No. 31,944; Robert W. Esmond, Esq., Reg. No. 32,893; Tracy-Gene G. Durkin, Esq., Reg. No. 32,831; Michele A. Cimbala, Esq., Reg. No. 33,851; Michael B. Ray, Esq., Reg. No. 33,997; Robert E. Sokohl, Esq., Reg. No. 36,013; Eric K. Steffe, Esq., Reg. No. 36,688; Michael Q. Lee, Esq., Reg. No. 35,239; Robert H. Benson, Esq., Registration No. 30,446; and A. Anders Brookes, Esq. Registration No. 36,373.

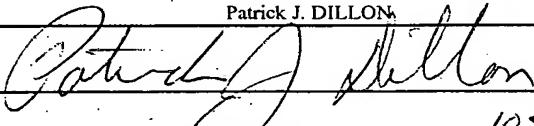
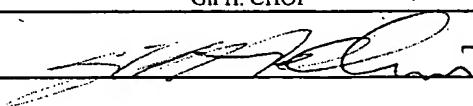
Send Correspondence to:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934

Direct Telephone Calls to:

(202) 371-2600

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor	Patrick J. DILLON	
Inventor's signature	 Date	
Residence	7308 Boxberry Terrace Gaithersburg, MD 20879	
Citizenship	U.S.A.	
Post Office Address	SAME AS ABOVE	
Full name of second inventor	Gil H. CHOI	
Second inventor's signature	 Date	
Residence	11429 Potomac Oaks Drive Rockville, MD 20850	
Citizenship	Korea	
Post Office Address	SAME AS ABOVE	

Full name of third inventor	Rodney A. WELCH
Third inventor's signature	Date
Residence	410 Ridge Street Madison, WI 53705
Citizenship	U.S.A.
Post Office Address	SAME AS ABOVE

P:\USERS\CMASSEY\CBMSJ\1488.0740002\DEC
SKGP Rev. 1/21/97

(Supply similar information and signature for subsequent joint inventors, if any)

Combined Declaration and Power of Attorney for Patent Application

HGS Ref. PB324P2
Docket No. 1488.0740002/JMC/CBM

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled Nucleotide Sequence of Escherichia coli Pathogenicity Islands, the specification of which is attached hereto unless the following box is checked:

was filed on November 21, 1997 ;
as United States Application Number 08/976,259
was amended on November 21, 1997 (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)	Priority Claimed		
(Application No.)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/> Yes <input type="checkbox"/> No
(Application No.)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

60/061,953	October 14, 1997
(Application No.)	(Filing Date)
60/031,626	November 21, 1996
(Application No.)	(Filing Date)

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

(Application No.) abandoned	(Filing Date)	(Status - patented, pending,
(Application No.) abandoned	(Filing Date)	(Status - patented, pending,

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert G. Sterne, Esq., Reg. No. 28,912; Edward J. Kessler, Esq., Reg. No. 25,688; Jorge A. Goldstein, Esq., Reg. No. 29,021; Samuel L. Fox, Esq., Reg. No. 30,353; David K.S. Cornwell, Esq., Reg. No. 31,944; Robert W. Esmond, Esq., Reg. No. 32,893; Tracy-Gene G. Durkin, Esq., Reg. No. 32,831; Michele A. Cimbala, Esq., Reg. No. 33,851; Michael B. Ray, Esq., Reg. No. 33,997; Robert E. Sokohl, Esq., Reg. No. 36,013; Eric K. Steffe, Esq., Reg. No. 36,688; Michael Q. Lee, Esq., Reg. No. 35,239; Robert H. Benson, Esq., Registration No. 30,446; and A. Anders Brookes, Esq. Registration No. 36,373.

Send Correspondence to:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934

Direct Telephone Calls to:

(202) 371-2600

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor	Patrick J. DILLON	
Inventor's signature	Date	
Residence	7508 Boxberry Terrace Gaithersburg, MD 20879	
Citizenship	U.S.A.	
Post Office Address	SAME AS ABOVE	
Full name of second inventor	Gil H. CHOI	
Second inventor's signature	Date	
Residence	11429 Potomac Oaks Drive Rockville, MD 20850	
Citizenship	Korea	
Post Office Address	SAME AS ABOVE	

Full name of third inventor <i>R A Welch</i>	Rodney A. WELCH	3/18/98
Third inventor's signature		Date
Residence	410 Ridge Street Madison, WI 53705	
Citizenship	U.S.A.	
Post Office Address	SAME AS ABOVE	

PLAUSERS/C/MASSEY/CBM/JC/1488.0740002/DEC
SKGP Rev. 12/1/97

(Supply similar information and signature for subsequent joint inventors, if any)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Dillon, et al.

Attorney Docket No.: PB324D2

Application No.: To Be Assigned

Art Unit: N/A

Filed: To Be Filed

Examiner: Not Yet Assigned

Title: Nucleotide Sequence of Escherichia Coli Pathogenicity Islands

**STATEMENT UNDER 37 C.F.R. § 3.73, REVOCATION OF PRIOR
POWERS OF ATTORNEY OR AUTHORIZATIONS OF AGENT,
AND POWER OF ATTORNEY OR AUTHORIZATION OF AGENT**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Statement Under 37 C.F.R. § 3.73

Human Genome Sciences, Inc. (“HGS”), organized and existing under the laws of the State of Delaware, having its principal place of business at 14200 Shady Grove Road, Rockville, Maryland 20850, and Wisconsin Alumni Research Foundation (“WARF”), having its principal place of business at 614 Walnut Street, 13th Floor, Madison, Wisconsin 53716, state that they are the assignees of record of the entire right, title and interest for the above-identified application by virtue of an assignment from inventors Patrick J. Dillon, Gil H. Choi, and Rodney A. Welch, recorded in the U.S. Patent and Trademark Office on April 7, 1998, at Reel 9144, Frame 0281 (as to Dillon and Choi), and recorded in the U.S. Patent and Trademark Office on April 7, 1998 at Reel 9099, Frame 0543 (as to Welch). This assignment was directed to the grandparent application (U.S. Application No. 08/976,259, filed November 21, 1997, and all continuation and divisional applications thereof.

The undersigned, whose titles are supplied below, are empowered to sign this document on behalf of HGS and WARF, respectively. The undersigned have reviewed all the documents in the chain of title of the above-captioned application, and, to the best of their knowledge and belief, HGS and WARF have title in the application as described above.

Revocation of Prior Powers of Attorney or Authorizations of Agent

HGS and WARF hereby revoke all previous powers of attorney or authorizations of agent given in the above-captioned application.

Power of Attorney or Authorization of Agent

HGS and WARF hereby appoint the Practitioners at **Customer Number 22195** as their attorneys or agents with full power of substitution, association, and revocation to prosecute the above-captioned application, including any continuations or divisionals thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith.

On behalf of Human Genome Sciences, Inc.:

For: Human Genome Sciences, Inc.

Signature: James H. D.

Name: James H. Davis, Ph.D., J.D.

Title: Executive Vice President and General Counsel

Date: March 19, 2004

On behalf of Wisconsin Alumni Research Foundation.:

For: Wisconsin Alumni Research Foundation

Signature: Michael Falk

Name: Michael Falk

Title: Director of Intellectual Property

Date: March 22, 2004



DB 32142
UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JULY 02, 1998

PTAS



100689443A

STERNE, KESSLER, GOLDSTEIN
& FOX P.L.L.C.
C/O JOHN M. COVERT
1100 NEW YORK AVE., N.W. SUITE 600
WASHINGTON, D.C. 20005-3934

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION
OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS
AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE
INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA
PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD
FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY
CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723.
PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE,
ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY,
SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/07/1998

REEL/FRAME: 9144/0281
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

DILLON, PATRICK J.

DOC DATE: 03/09/1998

ASSIGNOR:

CHOI, GIL H.

DOC DATE: 03/02/1998

ASSIGNEE:

HUMAN GENOME SCIENCES, INC.
9410 KEY WEST AVENUE
ROCKVILLE, MARYLAND 20850

FILING DATE: 11/21/1997
ISSUE DATE:

SERIAL NUMBER: 08976259
PATENT NUMBER:

DOROTHY RILEY, PARALEGAL
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

04-21-1998

RECEIVED

Form PTO-1595
6-93mRD
4/07/98

R



100689443

APR 07 1998
U.S. Department of Commerce
Patent and Trademark Office
RECEIPT ACCTNG. DIV.

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Patrick J. Dillon and Gil H. Choi

Additional name(s) of conveying party(ies) attached? yes no

3. Nature of Conveyance:

Assignment Merger
 Security Agreement Change of Name
 Other _____

Execution Date(s): March 9, 1998 and March 2, 1998

2. Name and address of receiving party(ies):

Name: Human Genome Sciences, Inc.

Street Address: 9410 Key West Avenue

City: Rockville State: MD Zip Code: 20850

Country: U.S.A.

Additional name(s) & address(es) attached? yes no

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is

A. Patent Application No(s). 08/976,259

B. Patent No(s).

Additional numbers attached?

 yes no

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

Internal Address: c/o John M. Covert

Street Address: 1100 New York Ave., N.W.
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved

1

7. Total fee (37 C.F.R. § 3.41).....\$ 40.00

 Enclosed Authorized to be charged to Deposit Account

8. Deposit Account Number: 19-0036

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

John M. Covert
Name of Person Signing
Registration No. 38,759

John M. Covert
Signature

Apr. 7, 1998
Date

Total number of pages including cover sheet, attachments and document 2

OMB NO. 0651-0011 (exp. 4/94)

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents and Trademarks, Box Assignments
Washington, D.C. 20231

0000140-0891259
40.00 00
11

04/20/1998 TT00H11
02 FC:5A1

ASSIGNMENT

HGS Ref. PB324P2
Docket No. 1488.0740002/JMC/CBM

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned: Patrick J. DILLON and Gil H. CHOI, the undersigned hereby sell(s) and assign(s) to HUMAN GENOME SCIENCES, INC. (the Assignee) his/her entire right, title and interest

check applicable box(es) for the United States of America (as defined in 35 U.S.C. § 100);
 and throughout the world,

in the invention(s) known as Nucleotide Sequence of *Escherichia coli* Pathogenicity Islands for which application(s) for patent in the United States of America has (have) been executed by the undersigned on March 2 & 9, 1998

(also known as United States Application No. 08/976,259, filed November 21, 1997), in any and all applications thereon, in any and all Letters Patent(s) therefor, and in any and all reissues, extensions, renewals, reexaminations of such applications or Letters Patent(s) and divisional and continuation applications thereof, to the full end of the term or terms for which such Letters Patent(s) issue, including the right to collect for all past, present and future damages, such entire right, title and interest to be held and enjoyed by the above-named Assignee to the same extent as they would have been held and enjoyed by the undersigned had this assignment and sale not been made.

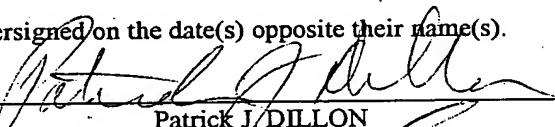
The undersigned agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

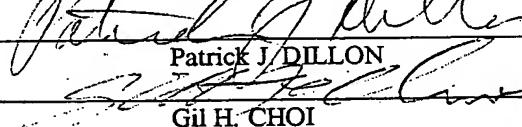
The undersigned agree(s) to execute all papers necessary in connection with any interference that may be declared concerning the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned hereby represents that the undersigned has full right to convey the entire interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict therewith.

The undersigned hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; and Michael Q. Lee, Esquire, Registration No. 35,239; Robert H. Benson, Esquire, Registration No. 30,446; and A. Anders Brookes, Esquire, Registration No. 36,373, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

Date: 3/9/98 Signature of Inventor: 
Patrick J. DILLON

Date: 3/2/1998 Signature of Inventor: 
Gil H. CHOI



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JUNE 11, 1998

PTAS

STERNE, KESSLER, GOLDSTEIN & FOX, PLLC
JOHN M. COVERT
1100 NEW YORK AVE., N.W. SUITE 600
WASHINGTON, D.C. 20005-3934



100689442A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION
OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS
AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE
INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA
PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD
FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY
CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723.
PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE,
ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY,
SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/07/1998

REEL/FRAME: 9099/0543
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

WELCH, RODNEY A.

DOC DATE: 03/18/1998

ASSIGNEE:

WISCONSIN ALUMNI RESEARCH FOUNDATION
614 WALNUT STREET, 13TH FLOOR
MADISON, WISCONSIN 53705

SERIAL NUMBER: 08976259

FILING DATE: 11/21/1997
ISSUE DATE:

PATENT NUMBER:

SHAREILL COLES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

RECEIVED
JUN 18 1998
STERNE, KESSLER, GOLDSTEIN & FOX
EKS
CBM 6/23
6/23

04-21-1998

Form PTO-1595
6-93MRD
4107198

RECORI

U.S. Department of Commerce
Patent and Trademark Office

100689442

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original.

1. Name of conveying party(ies):

Rodney A. Welch

Additional name(s) of conveying party(ies) attached? yes no

3. Nature of Conveyance:

Assignment Merger
 Security Agreement Change of Name
 Other

Execution Date(s): March 18, 1998

2. Name and address of receiving party(ies):

Name: Wisconsin Alumni Research Foundation

Street Address: 614 Walnut Street, Thirteenth Floor

City: Madison State: Wisconsin Zip Code: 53705

Country: U.S.A.

Additional name(s) & address(es) attached? yes no

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is

A. Patent Application No(s). 08/976,259

B. Patent No(s).

Additional numbers attached? yes no

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

Internal Address: c/o John M. Covert

Street Address: 1100 New York Ave., N.W.
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved

1

7. Total fee (37 C.F.R. § 3.41).....\$ 40.00 Enclosed Authorized to be charged to Deposit Account

8. Deposit Account Number: 19-0036

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

John M. Covert

Name of Person Signing
Registration No. 38,759

Apr. 7, 1998

Date

Total number of pages including cover sheet, attachments and document 2

OMB NO. 0651-0011 (exp. 4/94)

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents and Trademarks, Box Assignments
Washington, D.C. 20231P:\USERS\VC\MASSEY\CBMSJC\1488.074\0002\1595.002
017.pct
SKGF Rev. 4/16/96
 04/20/1998 11:00:11
 000014008711
 40.00 00
 01 FC:581

BEST AVAILABLE COPY

ASSIGNMENT

HGS Ref. PB324P2
Docket No. 1488.0740002/JMC/CBM

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned: Rodney A. WELCH, the undersigned hereby sell(s) and assign(s) to the WISCONSIN ALUMNI RESEARCH FOUNDATION (the Assignee) his/her entire right, title and interest

check applicable box(es) for the United States of America (as defined in 35 U.S.C. § 100),
 and throughout the world,

in the invention(s) known as Nucleotide Sequence of *Escherichia coli* Pathogenicity Islands for which application(s) for patent in the United States of America has (have) been executed by the undersigned on March 18, 1998 (also known as United States Application No. 08/976,259, filed November 21, 1997), in any and all applications thereon, in any and all Letters Patent(s) therefor, and in any and all reissues, extensions, renewals, reexaminations of such applications or Letters Patent(s) and divisional and continuation applications thereof, to the full end of the term or terms for which such Letters Patent(s) issue, including the right to collect for all past, present and future damages, such entire right, title and interest to be held and enjoyed by the above-named Assignee to the same extent as they would have been held and enjoyed by the undersigned had this assignment and sale not been made.

The undersigned agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference that may be declared concerning the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned hereby represents that the undersigned has full right to convey the entire interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict therewith.

The undersigned hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; and Michael Q. Lee, Esquire, Registration No. 35,239, of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

Date: 3/18/98 Signature of Inventor: R.A. Welch
Rodney A. WELCH

P:\USERS\CMASSEY\CBMSJC\1488.0740002\ASSIGNME.2